

Begin

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627

TSVETKOVIC, Sava

Experiences with the application of enzymatic zonulolysis according to J. Barraquer. Srpski arh. celok. lek. 87 no.7-8:677-680 J1-Ag '69.

1. Oeno odeljenje Opste bolnice u Zajecaru, sef: dr. Sava Tsvetkovic.  
(CATARACT ther.)  
(CHYMOTRYPSINS ther.)

YUGOSLAVIA/Diseases of Farm Animals - Diseases Caused by  
Helminths. Arachno-Entoms.

R.

Abs Jour : Ref Zhur - Biol., No 6, 1958, 26355  
Author : Nevenich, V., Petrovich, K., Sibalich, S., Tsvetkovich,  
Lj., Angelovskiy, T.  
Inst : -  
Title : Our Experience in Combatting Sheep Scabies with the  
Help of "Vetalin".  
Orig Pub : Veterin. glasnik, 1956, 10, No 10, 758-762  
Abstract : No abstract.

Card 1/1

AVDEYEV, Mikhail Mikhaylovich; TSVETKOVICH, Sergey Aleksandrovich; GORODETSKOV, A.P., inzh., retsenzent; SIDOROV, N.I., inzh., red.;  
MEDVEDEVA, M.A., tekhn. red.

[Practices in the operation of a.c. electric locomotives] Opyt eks-  
luatatsii elektrovozov peremennogo toka. Moskva, Vses. izdatel'sko-  
poligr. ob"edinenie M-va putei soobshchenia, 1961. 37 p.  
(Electric locomotives) (MIRA 14:11)

TSVETKOVSKIY, B.A.

Operation of the electrical drive of the PS-1200 centrifugal.  
Sakh.prom. 31 no.8:60-61 Ag '57. (MLRA 10:8)

1. Kiyevskiy sakhsveklotrest.  
(Centrifuges) (Electric motors)

TSVETKOVSKIY, B.A.

"Repair of electric motors." A.I. Maevskii. Reviewed by B.A. TSvetkovskii. Sakh.prom. 28 no.4:47-48 '54. (MLRA 7:7)  
(Electric motors--Repairing) (Maevskii, A.I.)

TSVETKOVSKIY, B.A.

Repairing the rotor of a turbo-generator. Sakh.prom. 27 no.4:30-31 Ap '53.  
(MLRA 6:6)

1. Kievskiy sakhsyeklotrest.

(Dynamos)

GRANOVSKIY, Ye.; TSVETKOVSKIY, V.

"Labor economics in the U.S.S.R.," edited by A.S.Kudriavtsev. Reviewed  
by E.Granovskii, V.TSvetkovskii. Sots. trud 7 no.12:140-146 D '62.  
(MIRA 16:2)

(Labor economics) (Kudriavtsev, A.S.)



TSVETKOVSKIY, V.N., polkovnik meditsinskoy sluzhby

Diagnostic significance of the fractional erythrocyte sedimentation rate in rheumatic fever. Voen.-med. zhur. no. 6:83 Je '60.  
(MIRA 13:7)

(RHEUMATIC FEVER) (ERTHROCYTES)

TSVETKOVSKIY, V.N.

Effect of various physiological factors on the vectorelectro-  
cardiogram. Klin.med. 38 no.6:41-44 Je '60. (MIRA 13:12)  
(VECTORCARDIOGRAPHY)

TSVETLOV, A.P.

Dams

Formula for determining in advance the weight of flat gates. Gidr.stroi. 21, no.1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1952 ~~1953~~, Uncl.

BULGARIA

GACHEVA, Y., TSVETANOV, K., Chair of Physiotherapy and Balneology, Director Prof. V. Mikhailov, ISUL /Institut za spetsializatsiya i usuvurshenstvuvane na lekarite; Institute for the Specialization and Advanced Study of Physicians/; Chair of Neurology, Director, Docent P. Ovcharova, ISUL.

"Treatment of Post-Apoplectic Hemiplegic Patients By Electric Stimulation with Low-Frequency Pulse Currents"

Sofia, Nevrologiya, Psikhatriya i Nevrokhirurgiya, Vol 4, No 6, 1965, pp 447-452.

Abstract: Electrotherapy with low-frequency pulse currents according to a method developed by Gacheva was applied to 25 patients 20-70 years old with hemipareses and hemiplegia in consequence of apoplectic strokes due to thromboses, embolisms, and hemorrhages in the brain. Starting from the principle of reciprocal action of flexors and extensors, attempts were made 1) to suppress the pathologically increased excitability and lability of the principal muscles (responsible for the Wernicke-Mann posture), while at the same time obtaining a reciprocal activation of the nerve centers of the extensors of the hands and flexors of the legs, resp.; 2) to stimulate antagonist muscles with a view of producing reciprocal inhibition of the spastic hypertonic muscles. The response of spastic parietic patients to the application of pulse currents varied; preliminary electrodiagnosis was found  
1/2

Emulsion binders for cores. G. D. Kretser and L. M. Tsvetkov. *Byull. Obmena Opyt. Lohokratichesk. Prom.* 1946, No. 5, 21-5. Core binders usually consist of oil mixts. with white spirits. When the cores are dried at 200-300° a no. of tech. fire and sanitary hazards due to the evapn. of white spirits is apparent. Aq. emulsions of oils were therefore tried instead of white spirit solns. Because sand contains 4-5% H<sub>2</sub>O only oil in water emulsions were tried. The following emulsifying agents were found to be satisfactory: triethanolamine, triethanolamine oleate, "acidol," alizarin oil, Na and K soaps. The emulsions were examd. for homogeneity, degree of dispersion, stability to standing to temp. variations and appearance. The emulsions served as binders as well as the white spirit solns.

David Achmy

| 1ST AND 2ND ORDERS  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3RD AND 4TH ORDERS    |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| COMMON ELEMENTS   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | COMMON VARIANTS INDEX |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PROCESSES AND PROPERTIES INDEX  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <p>5</p> <p>8</p> <p><b>The Centrifugal Casting of Billets for Seamless Steel Tubes.</b><br/>I. Pozdyshev, K. Tyvetnenko and B. Furs. (Stal, 1938, No. 1, pp. 44-52). (In Russian). The centrifugal casting of seamless steel tube billets offers a number of advantages. The authors describe experiments on the industrial scale on the production by this method of plain carbon and heat-resisting steel tubes. A centrifugal casting machine, designed and constructed in Russia, was used for these experiments. Full details of steel composition, casting temperatures, and other conditions of casting, method of rolling and the mechanical properties and microstructure of both the billets and the rolled tubes are given. Under suitable conditions, the results obtained were very satisfactory.</p> |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ASM-AIA METALLURGICAL LITERATURE CLASSIFICATION   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| REGIONAL BINARY   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1ST AND 2ND ORDERS  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3RD AND 4TH ORDERS  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

SOV/128-59-6-13/25

18(5)  
AUTHOR:

Tsvetnenko, K.U., Engineer

TITLE:

Using Models and Similarity Methods in Studying Centrifugal Casting

PERIODICAL:

Liteynoye Proizvodstvo, 1959, Nr 6, pp 38-40 (USSR)

ABSTRACT:

After describing the normal process when pouring liquid metal into the die during centrifugal casting, the author states that there is a great possibility of changing considerably the centrifugal casting when dis-regarding the dependency between the rotary speed, the temperatures, and the time for pouring the metal. Such a poor result is the formation of so-called "rain-falls", i.e. one part of the liquid metal separates from the pouring stream and pours down like a "rain". Such rain causes strong oxidation and changes considerably the formation of the structure. For correct pouring the following rule is suggested:

$$\frac{\omega_{\phi} - \omega_c}{\omega_{\phi}} = f \left( \frac{v \cdot t}{R^2}, \frac{r}{R}, \frac{\gamma}{v_3 (R + r_0)} \right)$$

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SOV/128-59-6-13/25

# Using Models and Similarity Methods in Studying Centrifugal Casting

- setting  $\omega$  equal to: rotationary speed of the mold within 1 sec.  
 $\omega_c$  equal to: flowing speed of the liquid metal in 1 sec.  
 $\nu$  equal to: coefficient of cinematic viscosity in cu.m/sec.  
 $t$  equal to: pouring time in sec.  
 $R$  equal to: outside radius of liquid stream during 1 min.  
 $r_c$  equal to: radius of the open area of the liquid in m.  
 $\gamma_c$  equal to: growth of the wall thickness of the casting in  $\mu$ /sec.

Based on these rules the author made tests to study the normal process, as well as the "rain-falls" of the centrifugal casting. These results are published by way of graphs, and micro-photos. Conclusion: Experimental testing of the rules proved a 10 to 15% deviation from the theory. There are 2 photographs, 5 graphs and

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SOV/128-52-6-13/25

Using Models and Similarity Methods in Studying Centrifugal Casting  
2 Soviet references

Card 3/3

S/123/61/000/004/013/027  
A004/A104

AUTHOR: Tsvetnenko, K. U.

TITLE: Using the similarity principle in the theory and practice of centrifugal casting

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 4, 1961, 18, abstract 46145. ("Tr. Ukr. n.-i. trubn. in-ta", 1959, no. 1, 177-201)

TEXT: The utilization of the principles of the theory of similarity and simulating for processes of centrifugal casting makes it possible to establish the technological parameters of castings. This method makes it possible to determine, in the value range of the criterion  $\frac{v}{\sqrt{3(R + r_0)}}$ , the critical velocity of mold revolution, the distribution of velocities over the flow depth, the duration of the unsettled rotation of the flow, which increases with a growing speed of rotation of the mold and rate of metal pouring and with a decrease in its viscosity (other conditions being equal). The unsettled state of the circular steel flow in short water-cooled metallic chills without lining can be observed during 20-25 seconds from the termination of the pouring, while it lasts some 80 seconds in long, dry, lined rotating molds at a temperature of

Card 1/2

Using the similarity principle ...

S/123/61/000/004/013/027  
A004/A104

the metal being poured of  $1,600^{\circ}\text{C}$  and a linear pouring speed of 0.2 - 0.25 cm/sec. The author presents formulae and graphs for the calculation of the optimum number of revolutions of the rotating mold which tally well with the practice. There are 16 figures and 14 references.

S. Zhukovskiy

[Abstractor's note: Complete translation]

Card 2/2

S/123/62/000/006/017/018  
AG004/A101

AUTHORS: Samoylov, G. D., Volkovitskiy, G. I., Tsvetnenko, K. U.

TITLE: Cast tube blanks from converter steel blown through with oxygen

PERIODICAL: Referativnyy zhurnal. Mashinostroyeniye, no. 6, 1962. 5, abstract  
6032 (V sb. "Proiz-vo trub". no. 5, Khar'kov, Metallurgizdat,  
1961. 129-132)

TEXT: The use of oxygen blast (containing 92 - 94% oxygen) considerably improves the quality of converter metal. Its chemical composition approaches that of open-hearth steel, while its content of harmful impurities and gases is reduced to the following limits: 0.020 - 0.045% S, 0.010 - 0.035% P, 0.005 - 0.010% N<sub>2</sub>, 0.002 - 0.003% O<sub>2</sub>, 0.0002 - 0.0004% H<sub>2</sub>. To investigate the feasibility of rolling tubes from ingots of converter metal blown through with oxygen, a batch of round-section ingots (345 mm in diameter and 2,000 mm high) were cast from killed grade 20 steel. The rolling results revealed the possibility of a successful production, on pilger mills, of tubes from ingots of converter metal blown through with oxygen.

[Abstracter's note: Complete translation]

Card 1/1

S/137/62/000/005/020/150  
A006/A101

AUTHORS: Samoylov, G. D., Volkovitskiy, G. I., Tsvetnenko, K. U.

TITLE: Oxygen-blown converter-steel cast pipe blanks

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 5, 1962, 59, abstract 5V345  
(V sb. "Proiz-vo trub", no. 5, Khar'kov, Metallurgizdat, 1961,  
129-132)

TEXT: To investigate the possibility of rolling pipes from O<sub>2</sub>-blown converter metal ingots, a series of grade "20" killed steel round ingots were cast (345 mm in diameter, 2,000 mm high). To study the structure of chemically heterogeneous ingots and the mechanical properties in the cross section at 600 mm from the bottom, templets were cut out. Samples and specimens were taken from the templets at different spots in the direction from the external surface to the axis. The structure of an ingot is characterized by the presence of 3 zones. Zone 1 of the external surface consists of a thin strip of very fine equiaxial crystals which slowly pass over into fine columnar crystals; zone 2 following zone 1, consists of ramified dendrites; zone 3 is located in the ingot depth at about 90 mm distance from the external surface extending towards its axis.

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Oxygen-blown converter-steel cast pipe blanks

S/137/62/000/006/020/150  
A006/A101 .

It consists of coarse equiaxial crystals with intermediate segregations. The distribution of elements in a converter metal ingot is the same as in open-hearth steel ingots. The results obtained in rolling show the possibility of successful pipe production from converter metal ingots on pilger mills.

P. A.

[Abstracter's note: Complete translation]

Card 2/2

TSVETNENKO, K.U.

Hydrodynamic state of the metal in centrifugal casting. Lit.  
proisv. no.7:45 J1 '62. (MIRA 16:2)  
(Centrifugal casting)

36581  
S/123/62/000/007/016/016  
A004/A101

1.1500

AUTHOR: Tsvetnenko, K. U.

TITLE: The metal flow rate along rotating chill molds and its effect on the outer surface quality of centrifugally cast tube blanks

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 7, 1962, 21, abstract 7G162 (V sb. "Proiz-vo trub". no. 5, Khar'kov, Metallurgizdat, 1961, 133-139)

TEXT: The quality of the outer surface of hollow tube blanks cast by the centrifugal method in relatively long ingot molds depends, to a considerable extent, on the metal flow conditions and the rate at which the inner mold surface is covered by an unbroken steel layer. The motion of the flow along the ingot mold is impeded by the friction on the mold lining and a decrease in the metal fluidity owing to its temperature drop. These two factors slow down the metal flow rate, and the longer the mold, the more pronounced is their effect. During tests being carried out, the metal flow rate was determined by the closing of contacts which were placed over the whole length of the mold. It was found that a lining of coarse-grained river sand with rounded off grains offers less

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S/123/62/000/007/016/016  
A004/A101

The metal flow rate along rotating chill molds ...

resistance to the flow of the liquid steel than a lining of fine-grained sand. The average metal flow rate on a lining of fine-grained sand amounts to 0.144 m/sec, while it is 0.241 m/sec on a lining of coarse-grained river sand with rounded off grains. This is explained by the physical characteristics of the metal motion on a loose lining. Rounded off sand grains offer less resistance to the metal flow than canted ones, the granulometric composition being approximately the same. If a lining of fine-grained sand is used, the outer tube surface shows depressions and cavities since the shear resistance of the lining layer to the metal flow is not high because of the low inertia of the fine-grained sand. A coarse-grained sand increases the centrifugal forces acting on the lining layer in contact with the liquid metal, and a lining from this sand offers a considerable shear resistance to the metal flow, as a result of which the outer tube surface is of a better quality than with fine-grained sand. However, in this case scab is formed owing to the penetration of the metal into the coarse pores. To reduce the pores on the surface of a lining from coarse-grained sand, the author recommends to apply a layer of fine-grained sand 0.7 - 1.0 mm thick. In this case the outer surface of the blanks does not show any scab or other casting defects. There are 7 figures and 2 references.

L. Yanovskaya

[Abstracter's note: Complete translation]

Card 2/2

S/123/61/000/004/019/027  
A004/A104

AUTHORS: Tsvetnenko, K. U.; Volkovitskiy, G. I., and Samoylov, G. D.

TITLE: Centrifugal casting of hollow pipe blanks from converter metal blown through with oxygen

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 4, 1961, 20, abstract 40155. ("Byul. nauchno-tekhn. inform. Ukr. n.-i. trubn. in-t", 1959, nos. 6-7, 131-135)

TEXT: The authors report on the casting of pipes from converter steel of the grades K 0, K 10, K 20, KC (KS) and KД (KD) on centrifugal machines, the steel having been smelted with oxygen blowing. The blanks had a length of 3,320 mm, a diameter of 285 mm and a wall thickness of 40-45 mm. High-quality blanks can be obtained if the following technological parameters are observed: rotation speed of 600 rpm at the moment of pouring and 500 rpm after the steel has reached the opposite chill end; pouring rate - 25 kg/sec; sand layer thickness on the inner chill surface - 5-6 mm. There is 1 figure and 3 references.  
S. Zhukovskiy

[Abstractor's note: Complete translation]

Card 1/1

S/123/61/000/004/016/027  
A004/A1G4

AUTHORS: Tsvetnenko, K. U., and Rulla, N. V.

TITLE: The effect of steel sprinkling during centrifugal casting on the quality of cast blanks and pipes rolled from them

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 4, 1961, 19, abstract 4G148. ("Byul. nauchno-tekhn. inform. Ukr. n.-i. trubn. in-t", 1959, no. 8, 57-64)

TEXT: Investigations carried out on a centrifugal casting machine revealed the following defects of pipe blanks cast with sprinkling: 1) the macroscopic structure of the blank is multi-zonal with abrupt boundaries between the adjacent zones; 2) besides the zonal structure, the blank shows also a distinct nonhomogeneity of the chemical composition and a nonuniform change of mechanical properties over the wall thickness. It was found by tests that the hot deformation during the rolling of the blank does not change the character of the macrostructure, nor does it lead to a homogeneity of the chemical composition and uniformity of mechanical properties which, in this case, are preserved also in the ready

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The effect of steel sprinkling ...

S/123/61/000/004/016/027  
A004/A104

pipe. It is pointed out that carbon steel blanks cast with sprinkling should not be used for the manufacture of pipes. There are 2 references.

S. Zhukovskiy

[Abstractor's note: Complete translation]

Card 2/2

TSVETNENKO, K.U.

Macrostructure of hollow steel centrifugal castings. Lit. proizv.  
no.6:35-37 Je '61. (MIRA 14:6)  
(Steel castings)

AUTHOR: Tsvetnenko, K.U., Engineer SOV-128-58-7-16/20

TITLE: To the Problem of the Effect of the Rotation Velocity of the Mold on the Speed of the Longitudinal Displacement of Metal  
(K voprosu o vliyanií skorosti vrashcheniya formy na skorost' prodol'nogo peremeshcheniya metalla.)

PERIODICAL: Liteynoye proizvodstvo, 1958, Nr 7, p 29 (USSR)

ABSTRACT: The author disagrees with the statement made by M.M. Levin and V.M Krapukhin in their article "Centrifugal Casting of Cast Iron Pipes with Two Flanges", in "Liteynoye Proizvodstvo", Nr 6, 1957, that the flow speed of metal along the mold in the process of centrifugal casting of pipes in earth molds is inversely proportional to the rotation velocity of the mold. There are 2 graphs.

1. Pipes--Casting 2. Mathematics--Applications

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11500

25537

5/123/62/000/011 021 021  
A004/A101

AUTHORS: Volkovitskiy, G. I.; Tavetnanko, K. U.; Trubchenko, P. A.;  
Samoylov, G. D.

TITLE: Centrifugal tube blank castings from bessemer steel smelted with  
the application of oxygen blast

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 11, 1961, 28, abstract  
11G181 (V sb. "Proiz-vo trub". no. 3, Khar'kov, 1960, 92-102)

TEXT: The authors present technological data and investigation results of  
the quality of centrifugal tube blank castings from bessemer steel smelted with  
oxygen blast (St.20 and carbon steel). The obtained results were compared with  
the corresponding data on centrifugal casting of tube blanks from carbon electric  
steel. It was found that the structure of the centrifugally cast blanks is not  
so much determined by the smelting method but by the casting parameters. The  
optimum metal overheating over the liquidus temperature should not exceed 50-70°C  
(in this case 60-70% of the blank metal does generally not possess a zonal macro-  
structure over the wall thickness). The absence of an even growth of C, S and  
P-concentrations from the outer casting surface to the inner one was found, which

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Centrifugal tube blank castings ... 25537

S/123/61/000/011/021/034  
A004/A101

is generally related to the effect of the centrifugal process, although the inner surface zone contains nevertheless more S and P than the outer one. An additional nitrogen saturation of centrifugal cast blanks from bessemer steel with oxygen blast does not take place. The increase of the nitrogen content towards the inner blank surface is connected with the separation of dissolved gases by the centrifugal forces (metals with a higher manganese content contain more nitrogen). The blank metal from electric steel contained 0.006-0.011% N, i. e. nearly the same quantity as in bessemer steel. All strength characteristics both over the cross section and in various zones over the blank length vary in a comparatively narrow range. Besides, the strength characteristics of centrifugal cast blanks are always higher, while the plastic characteristics after heat treatment are mostly higher than it is stipulated by GOST for rolled tubes. The suggested technology ensures a high quality of tubing blanks, including their deformation ability.

S. Shamirgon

[Abstracter's note: Complete translation]

Card 2/2



TSVETNENKO, K.U., inzh. [deceased]; RULIA, N.V., kand. tekhn. nauk

Effect of the vibration of centrifugal machines on the quality  
of castings. Lit. proizv. no.1:44 Ja '66.

(MIRA 19:1)

TSVETKOVICH, S.A.

Sand equipment for a.c. electric locomotives on receiving and departure tracks. Elek. i tepl. tiaga no.1:24-25 Ja '61.

(MIRA 14:3)

1. Nachal'nik tekhnicheskogo otdela sluzhby lokomotivnogo khozyaystva Krasnoyarskoy dorogi.

(Electric locomotives)

KOCHUROV, Nikolay Ivanovich; TSVETNIKOV, Viktor Ivanovich; ZUYEV,  
A.I., inzh., retsenzent; MYADELETS, O.V., inzh., red.;  
SIMONOVSKIY, N.Z., red. izd-va; SHCHETININA, L.V., tekhn.  
red.

[Hydraulic systems of tractors and agricultural machines]  
Gidravlicheskie sistemy traktorov i sel'skokhoziaistven-  
nykh mashin. Moskva, Mashgiz, 1962. 176 p. (MIRA 15:11)  
(Tractors---Hydraulic equipment)  
(Agricultural machinery---Hydraulic equipment)



ADDITIONAL INFORMATION

basic field of a computer is based on interaction of each element of the basic field with the elements adjacent to that field. Ferrite cores and transistors provide the technical basis of the cell, so that it can complete a full cycle in 30 microseconds. A. L. Kiselevsky

END: 00

CHERNOMON, S.A., prof.; TROSTIAN, V.B., tech.

Bending stresses in conveyor belts. Izv. vuz. uchast. zashch. 1955.  
zhur. 8 no.1:79-84 1955.

1. Universitet druzhby narodov imeni Patrisa Lumumby. 1955. 1955. 1955.  
kafedroy konstruktivnykh detalей uzlov mashin i mekhanizmov.

TSVETNOV, V.V.

TSVETNOV, V. V.: "Theoretical investigation of the effect of Gaussian interference on two-channel phase systems." Min Higher Education USSR. Moscow Order of Lenin Aviation Inst imeni Sergo Ordzhonikidze. Moscow, 1956. (Dissertations for the Degree of Candidate in Technical Sciences).

SO: Knizhnays Letopis' No. 22, 1956

AUTHOR  
TITLE

TSVETNOV V.V., Ordinary Member of Radio Society.  
Statistic Properties of Signals and Noises in Phase Systems With Two  
Channels.

PERIODICAL

(Statisticheskiye svoystva signalov i pomekh v dvukhkanal'nykh fazovykh  
sistemakh - Russian)  
Radiotekhnika, 1957, Vol 12, Nr 5. pp 12 - 29 (U.S.S.R.)

ABSTRACT

The basic statistic properties of amplitudes, the phase displacement of  
sinoidal signals as well as the GAUSS signal-to-noise ratio in two channel  
systems are investigated and analyzed. The vector diagrams and the stati-  
stic initial parameters are dealt with. Six parameters are introduced as  
initial parameters and they fully determine the laws of the distribution  
of amplitude - and phase shifts, namely- 1.) The relation "q" between sig-  
nal intensity and the intensity of noise. 2.) The coefficient of channel  
asymmetry. 3.) Generalized correlation coefficient of the two-channel noi-  
se. 4.) Generalized phase parameter of the two-channel noise. 5.) Phase shift  
of the signal as well as of the two-channel noise. - A three-dimensional pro-  
bability-density, i.e. the first amplitude-distribution law as well as  
the first phase distribution law are deduced independently of each other.  
The first phase distribution law for a signal and a two-channel noise, which  
is in no correlation, are then investigated. Here the range of weak and  
that of strong signals, in which the parameter q changes, are investigated.  
The statistic properties of the momentary phase distortion for the signal  
as well as for the two channel noise which is not in correlation, are in-

Card 1/2



Statistic Properties of Signals and Noises in Phase Systems 106-1-3/13  
With Two Channels.

vestigated, namely the characteristic function  $\varphi(t)$  the scattering  
(average quadratic deviation) the arithmetic mean of displacement and the  
integral law of distribution. Finally some cases of statistic phase-pro-  
perties of strong signals are investigated.  
(With 1 table, 10 illustrations and 5 Slavic references).

ASSOCIATION Not Given.  
PRESENTED BY  
SUBMITTED  
AVAILABLE Library of Congress  
Card 2/2

AUTHOR: Tsvetnov, V.V., Member of the Society 108-13-4-7/12

TITLE: ~~Correlation Phase Properties of Signals and Gaussian Inter-~~  
ferences in Two-Channel Phase Systems (Fazovyye korrelyatsionnyye  
svoystva signalov i gaussovykh pomekh v dvukhkanal'nykh fazovykh  
sistemakh)

PERIODICAL: Radiotekhnika, 1958, Vol. 13, Nr 4, pp. 53-62 (USSR)

ABSTRACT: The correlation properties of the phase differences at the input  
of the phasometer are analyzed in two-channel phase systems sub-  
jected to the action of Gaussian interference. In the 1st part  
the statistical properties of the non-correlated interferences  
are studied. The second amplitude-phase law of distribution is  
set up: equation (2). If the two-channel phase system has identi-  
cal channels, the law (2) is simplified to (6). Hereafter, the  
second phase-law of distribution is set up: equation (9). In the  
case of channels being identical, equation (9) is simplified and  
becomes equation (12). The correlation functions of the phase  
differences of two-channel not correlated interference is studied,  
and it is shown that in the case of channels not being identical  
the correlation function of the phase difference of a not

Card 1/2

Correlation Phase Properties of Signals and Gaussian  
Interferences in Two-Channel Phase Systems

108-13-4-7/12

correlated two-channel interference depends on three correlation functions. The latter are determined by the energetic spectra of interferences according to (3), (4), and (5). In the analysis of normalized correlation functions of phase differences the calculation of the factors occurring in (10) and (13) presents the greatest difficulties. Therefore, approximated formulae for the correlation functions for domains with small, medium, and large correlation intervals are given. - In the 2nd part the phase-correlation properties of a strong signal and of a correlated two-channel interference are investigated, viz. the correlation function of the phase difference (general case) and one for special cases (identical channels with not correlated interferences and such with correlated interferences). There are 5 figures and 6 references, 5 of which are Soviet.

SUBMITTED: October 12, 1956

AVAILABLE: Library of Congress

Card 2/2

1. Bichannel phase systems--Theory 2. Signals--Correlation  
phase properties 3. Signals--Interference

ACCESSION NR: AP4042514

S/0109/64/009/007/1159/1172

AUTHOR: Tsvetnov, V. V.

TITLE: Comparison of fluctuation errors of phase meters and correlometers

SOURCE: Radiotekhnika i elektronika, v. 9, no. 7, 1964, 1159-1172

TOPIC TAGS: phase meter, correlometer, radio navigation, radar system

ABSTRACT: A phase meter is defined as a device whose reading is proportional to the phase difference of two coherent signals; a correlation meter is a device whose reading is proportional to the time delay of random coherent signals. Fluctuation errors of a servoed phase meter are assessed theoretically and compared with those of a servoed correlometer. These conclusions are offered:

(1) With strong input signals, a servoed inertial phase meter is the optimum instrument for measuring the phase difference of harmonic signals in a Gaussian noise; (2) With random signals, the fluctuation errors due to incoherent noise

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ACCESSION NR: AP4042514

differ but little from those in the preceding case; however, an additional error due to the randomness of signals arises, and the general level of fluctuations increases; (3) In inertialess servoed and nonservoed phase meters, the fluctuation errors due to the randomness of signals are proportional to the average phase-difference measurand and to the relative band of the signal; (4) The randomness fluctuation error is much lower in the servoed inertial correlometer than in the inertial phase meter; (5) Time-reading fluctuation errors due to incoherent noise are equal for both instruments if certain conditions (formula 51) are observed; (6) With weak input signals, and under 2-channel measuring conditions, the lower the signal-to-noise ratio at the inputs of the correlometer and servoed phase meter, the farther they both depart from the optimum. Orig. art. has: 6 figures and 60 formulas.

ASSOCIATION: none

SUBMITTED: 03May63

ENCL: 00

SUB CODE: NG, EC

NO REF SOV: 005

OTHER: 000

Card 2/2

150E7NOV, V. V.

6(4); 7(7); 9(3)P.3

PHASE I BOOK EXPLOITATION

SOV/2665

Moscow. Aviatsonnyy institut imeni Sergo Ordzhonikidze

Issledovaniye tochnosti i pomekhoustoychivosti fazovykh radiopelengatorov; sbornik statey (Study of the Accuracy and Noise Protection of Phase Radio Direction Finders; Collection of Articles) Leningrad, Sudpromgiz, 1959. 92 p. (Series: Its: Trudy, vyp. 105) Errata slip inserted. 4,500 copies printed.

Resp. Ed.: V.B. Pestryakov, Professor; Ed.: V.S. Chichkanova; Tech. Ed.: L.I. Levochkina.

**PURPOSE:** This collection of articles is intended for scientific personnel and engineers and graduate students specializing in phasing techniques.

**COVERAGE:** The collection deals with the theoretical investigation of the accuracy and of the noise-killing feature of certain types of phase radio direction finders of interest for modern radio navigation, radar, and radio control. An analysis of instrument errors of two types of radio direction finders is presented. Statistical phase properties of signals and

Card 1/7

Study of the Accuracy (Cont.)

SOV/2665

of Gaussian errors in two-channel phase radio direction finders are investigated. Several graphs may be of use in engineering calculations. The articles are based on material from the proceedings of a conference organized by the Moscow Aviation Institute in February, 1956. The investigations were carried out by scientific personnel of the radio engineering department of the Institute. References follow each article.

TABLE OF CONTENTS:

Foreword

3

Uliyanov, V.S., Candidate of Technical Sciences. Equipment Errors of a Two-channel Pulse Radio Direction Finder

6

The author analyzes equipment errors, occurring due to lack of identity between amplifying channels and the resulting unbalance, in two-channel radio direction finders using continuous and pulsed radio signals. He derives functional relationships for this unbalance with respect to amplitude and phase. He finds that unbalance can lead to a difference in the amplification factor modulus between channels of up to 44 percent. However, from experience it was found that obtaining a 20 percent amplifica-

Card 2/7

Study of the Accuracy (Cont.)

SOV/2665

tion balance of channels is not difficult. He then investigates the lack of balance between tuned amplifiers with a harmonic signal and draws curves of relationships for the systematic tuning error of the operator for various values of unbalance in one-stage and two-stage channels. The author also investigates channel unbalance for pulsed radio signals. In paragraph 3 diagrams of the modulus and phase of the voltage envelope at the output of one- and two-stage tuned amplifiers are presented and are used to determine the instantaneous magnitude of error at a given pulse moment. Curves showing the dependence of average error on pulse duration are also presented. The author concludes that with a pulse duration twice that of the optimal, error is practically equal to that with a continuous signal. With a shorter pulse duration, error declines. No personalities are mentioned. There are two references: 1 Soviet and 1 English.

Tsvetnov, V.V., Candidate of Technical Sciences. Effect of Gaussian Error on Two-channel Phase Systems

26.

This article is a continuation of two earlier works by the author. In it he investigates basic statistical properties of sinusoidal signals and of Gaussian errors in phase systems with channel separation, taking into consideration the lack of identity between the channels and in error correlation.

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Study of the Accuracy (Cont.)

SOV/2665

Since noise-suppression methods in phase systems are comparatively scarce, the author attempts to develop a theory for random noise in order to develop a theory for random noise in order to develop noise-killing features in the phase systems themselves. The author divides his problem into three stages, the first of which is common for all phase systems. The two others must be solved separately for each system. The first stage consists in investigating statistical properties of the signal and of the Gaussian error at the phasometer input on the basis of initial statistical parameters of the signal and noise. The second stage consists in finding a relationship between the initial statistical parameters of signal and noise and the structure of the shaping channels, the mechanism of noise emergence, etc. The third stage takes into consideration the effect of the phasometer. On the basis of these three stages it is possible to determine the accuracy of the phase system. The author establishes his first phase distribution rule, which is expressed in parametric form in order to simplify final formulae. These formulae are developed for both symmetrical and asymmetrical two-channel systems. He draws several curves of error relationships and concludes that with the help of his general formula, it is possible to solve the first stage of the general problem of the noise-killing feature (analytically or graphically) for any two-channel system.

Card 4/7

## Study of the Accuracy (Cont.)

SOV/2665

In Appendix A the author presents some derivations of integrals found in paragraphs 7 to 9 of his work. In Appendix B he lists properties and draws diagrams of the L-functions. No personalities are mentioned. There are 16 references: 7 Soviet (including 2 translations), and 9 English.

Veytsel', V.A., Candidate of Technical Sciences. Effect of Fluctuations of the Amplitude of the Reflected Signal on the Accuracy of Measuring the Width of a Beam of Scattered Waves

68

The author explains the role of the angular width of a beam of scattered waves in studying the composition of the ionosphere. In some of the works listed as references methods for measuring this parameter were presented. These methods concerned diversity effects in spaced-aerial reception of ionospheric waves. However, when they are applied, an error is introduced. The aim of this work consists in explaining to what extent this error is essential and under what conditions it can be neglected. The author concludes that in measuring the beam width one can neglect the correction for the effect of signal amplitude fading in the case when the power of the received signal considerably exceeds the threshold sensitivity of the direction finder. When the ratio of threshold to received power is small, the measurements obtained with the DF are somewhat smaller than actual.

Card 5/7

## Study of the Accuracy (Cont.)

SOV/2665

No personalities are mentioned. There are 6 references: 5 Soviet, and 1 English.

Belavin, O.V., Candidate of Technical Sciences. Problem of Equipment Errors in Automatic Shortwave Radio Direction Finders With a Large Base ("Add-subtract" Radio Direction Finders With Phase Comparison)

74

The article is devoted to an analysis of instrument accuracy of a radio direction finder with channel separation, having single-channel amplification in the main channel. This direction finder was developed by the members of the radio department of the MAI and used from 1950 to 1954 for an analysis of statistical properties of the ionosphere. The author discusses the three basic methods of large-base radio direction finding: phase, amplitude, and amplitude-phase. He devotes his attention to the last type, presents its basic equations, finds the required accuracy in measuring phase differences, and determines and analyzes equipment errors. The methods used in accounting for instrument errors in the radio direction finder analyzed may be applied for designing other director finder variations operating with the "add-subtract" method and having a low frequency phase difference measurement. No personalities are mentioned. There are three references: 2 Soviet, and 1 German.

Card 6/7

Study of the Accuracy (Cont.)

SOV/2665

AVAILABLE: Library of Congress

Card 7/7

JP/jb  
1-18-60

TSVETNOV, V.V.

Threshold sensitivity of ideal phase measuring members. Radio-  
tekhnika 17 no.1:68-75 Ja '62. (MIRA 15:2)

1. Deystvitel'nyy chlen Nauchno-tekhnicheskogo obshchestva  
radiotekhniki i elektrosvyazi imeni Popova.  
(Radio in navigation)

35380

S/108/62/017/003/006/009  
D299/D303

6.4320 (also 1031)

AUTHOR: Tsvetnov, V.V., Member of the Society (see Association)

TITLE: Threshold sensitivity of phase radio direction-finders

PERIODICAL: Radiotekhnika, v. 17, no. 3, 1962, 48 - 60

TEXT: A method is considered for computing the threshold sensitivity of various types of wide-base direction finders, background noises being taken into account. The signal of frequency  $f_0$  is received by the 2 antennas  $A_1$  and  $A_2$ ; after amplification and transformation, it is applied to the phase-measurement unit (PhM). One-channel and two-channel types of direction-finders are considered. The standard deviation  $\sigma_{\Delta ph}$  of the momentary phase error  $\Delta ph$  characterizes the error in measuring the phase in the presence of noises, and hence the accuracy of direction finding. The threshold sensitivity is determined by the value of the signal-to-noise ratio at the input ( $X_{in thr}$ ), for which the standard deviation  $\sigma_{\Delta ph}$  does not exceed the maximum permissible value  $\sigma_{\Delta ph max}$ . It is also con-

Card (1/4)

Threshold sensitivity of phase ...

S/108/62017/003/006/009  
D299/D303

venient to express the threshold sensitivity by the ratio of the signal-to-noise fields ( $X_E$  thr). Another threshold parameter which is of interest, is the threshold power  $P_t$  thr of the transmitter to be detected. Formulas are derived by which any of the 3 threshold parameters,  $P_t$ ,  $X_E$  and  $X_{in}$  can be found, for actual operating conditions of the direction finder, and any pre-assigned error  $\sigma_{\Delta ph \max}$ . It is assumed that the PhM are ideal, i.e. their readings are independent of the amplitude of the input signals. The passage of signals and noises through a typical circuit (linear filter - nonlinear element - linear filter) of the direction finder, is considered. The noise at the input of the typical circuit is white Gaussian noise with spectral density  $G_0$ . At the output of the circuit, the following quantities are considered: The amplitude of the signal  $U_{F0}$ , the noise dispersion  $\sigma^2$ , the noise spectrum  $G(f)$ , and the signal-to-noise ratio  $q$ . Three particular cases are discussed: 1) AM signal; 2) A signal having 2 side frequencies with very dissimilar amplitudes; 3) A signal having 2 side frequencies with

Card 2/4

S/108/62/017/003/006/009  
D299/D303

Threshold sensitivity of phase ...

equal amplitudes U. Threshold sensitivity of 2-channel direction-finders: Two variants are considered: Direction-finders with high-frequency method of phase-difference measurement, and with low-frequency method, respectively. Block-diagrams of the 2 types are shown. Formulas are derived for  $X_{in}$  and graphs for  $P_t$ ; thus, the low-frequency measurements yield the values:

$$X_{in} = \begin{cases} 81 \sigma_{ph \max}^{-1} \sqrt{f_{low}} & \text{(for inertialess PhM),} \\ 81 \sigma_{ph \max}^{-2} \sqrt{2 F_{ph}} & \text{(for inertial PhM).} \end{cases}$$

A comparison of the obtained formulas shows that the threshold sensitivity of direction-finders with low-frequency phase-measurement and inertialess PhM, is higher than that of direction-finders with high-frequency measurement. One-channel direction-finders: Formulas are derived for the threshold sensitivity of one-channel direction-finders with inertial- and inertialess PhM. A comparison of the threshold sensitivity of one-channel and two-channel direction-finders, shows that the sensitivity of the latter is at least double  
Card 3/4



Threshold sensitivity of phase ...

S/108/62/017/003/006/009  
D299/D303

that of the former. Further, the influence of external- and internal noises on the threshold sensitivity of one-channel direction-finders is considered. As an example, the dependence is calculated of the maximum range  $R$  on the permissible phase error  $\sigma$ . The use of direction-finders with inertialess phase-measurement units and synchronous detectors, leads to a considerable increase in range and accuracy. There are 9 figures, 1 table and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc (in translation). X

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A.S. Popova (Scientific and Technical Society of Radio Engineering and Electrical Communications imeni A.S. Popov) [Abstractor's note: Name of Association taken from first page of journal]

SUBMITTED: November 22, 1960 (initially)  
June 2, 1961 (after revision)

Card 4/4

TSVETNOV, V.V.

Comparison of fluctuation errors of phase measuring and  
correlation-type measuring systems. Radiotekh. i elektron.  
9 no.7:1159-1172 J1 '64 (MIRA 17:8)

I 19762-65 ETC(1)/FSS-2/EEC-4/EEC(6) Pn-4/tp-4/pac-4

ACCESSION NR: AP4047811

S/0108/64/019/010/007/0039

AUTHOR: Tsvetkov, V. V. (Active member)

TITLE: Distribution of the phase difference of harmonic signals and uncorrelated Gaussian noise in a two-channel system with identical channels

work ("Radiotekhnika," 1. 12, no. 5, 1957) proved to be unwieldy in some cases. Hence, a different solution through the development of the probability-density function into a Fourier series is suggested. The solution is applied to an

Card 1/2

ACC NR: AT6037040

SOURCE CODE: UR/0000/66/000/000/0005/0026

AUTHOR: Tsvetnov, V. V. (Candidate of technical sciences)

ORG: none

TITLE: Statistical properties of radar signals from extended surfaces in systems with an inner coherence

SOURCE: Moscow, Aviatsionnyy institut. Teoriya i tekhnika radiolokatsii (Radar theory and techniques); sbornik statey, no. 1, Moscow. Izd-vo Mashinostroyeniye, 1966, 5-26

TOPIC TAGS: radar signal, Doppler velocity meter, coherent radar

ABSTRACT: The article examines the statistical properties of beat signals in radar systems with inner coherence under conditions where the signal is reflected from an extended rough surface. The power spectrum, autocorrelation function, and other statistical characteristics have been found by the phenomena-logical-modeling method. The general solution, valid for a broad class of emitted continuous-type signals, exemplified by an illustration of the Doppler velocity meter with

Card 1/2

UDC: 621.396.962.33(04)

ACC NR: AT6037040

monochromatic radiation and of a radio altimeter with frequency modulation.  
Orig. art. has: 8 figures, 73 formulas.

[GC]

SUB CODE: 17/ SUBM DATE: 15Jul66/ ORIG REF: 008/

Card 2/2



L 62790-65

ACCESSION Nr: AP 018263

UR/0108/65/020/007/0057/0016  
621.317.772

AUTHOR: Tsvetnov V. V., Karandasov, V. I.

TITLE: Fluctuation errors of correlometers

SOURCE: Radiotekhnika, v. 20, no. 7, 1965, 57-66

TOPIC TAGS: correlometer, correlometer error

ABSTRACT: Two structural types of correlometers are considered: Type 1, intended for searching purposes, displays on a scope the cross correlation function  $\rho_{xy}(t)$ .

Card 1/2

L 62790-65

ACCESSION NR: AP5018263

where  $k_0 = 0.1-0.2$  is a proportionality factor and  $2\Delta F$  is the double effective width of the energy spectrum which is measured in the energy spectrum.

has: 6 figures and 36 formulas.

ASSOCIATION: none

QUARTER: 1965

NO REF: 1003

STEER: 1003

ATL 1003 1056



TSILINOV, V.V.

Distribution of the phase difference of signals of a  
noncorrelated gaussian noise in a two-channel system with  
identical channels. Radiotekhnika 19 no.10:37-39 G. V. V.

(MIL 17:22)

1. Poystvitel'nyy chlen Nauchno-tekhnicheskogo obshchestva  
radiotekhniki i elektrosvyazi imeni A.S. Popova.

L 29203-66 EWT(1)

ACC NR: AP6007593

SOURCE CODE: UR/0119/66/000/002/0010/0012

AUTHOR: Tsvetov, Yu. N. (Candidate of technical sciences)

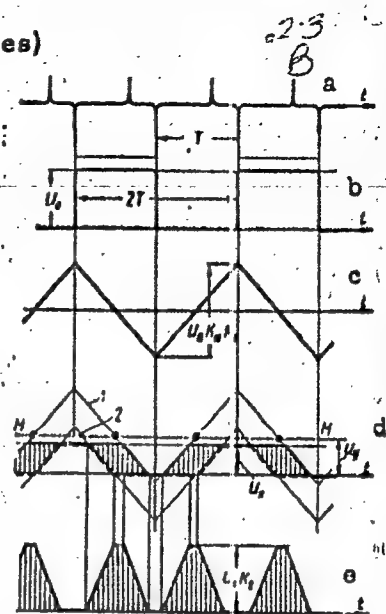
ORG: none

TITLE: Multiplier with triangular carrier signals

SOURCE: Priborostroyeniye, no. 2, 1966, 10-12

TOPIC TAGS: voltage multiplier, electron multiplier

ABSTRACT: The shortcomings of known a-c multipliers are briefly reviewed. A new method is suggested (see figure) in which two triangular-shaped sequences 1 and 2 (to be multiplied) are clipped by their limiters in such a way that all parts lying lower than the zero level and higher than their common threshold  $u_x$  are discarded. One limiter sequence ( $u_x$ ) is shown by a heavy line and the other ( $u_y$ ) by a dotted line in Section-d of the figure. The second trapezoids are subtracted from the first. The remaining parallelogram areas are proportional to



Voltage multiplication idea

Card 1/2

UDC: 681.142.642.3

L 29203-66

ACC NR: AP6007593

the desired product of two voltages. A laboratory hookup (principal diagram shown) corroborated the above considerations and showed that tube aging and replacement did not introduce errors in the multiplication results. Orig. art. has: 3 figures and 9 formulas.

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 005

Card 2/2

BLG

TSVETNOVA, R.V.; KRASIL'SHIKOV, A.I.

Passivity of titanium in sulfuric acid. Zhur. fiz. khim. 39  
no. 1:207-211 Ja '65 (MIRA 19:1)

1. Submitted February 4, 1964.

ACC NR: AP6015285

(N)

SOURCE CODE: UR/0365/66/002/003/0295/0299

AUTHOR: Tavetnova, R. V.; Krasil'shchikov, A. I.

ORG: State Institute of the Nitrogen Industry (Gosudarstvennyy institut azotnoy promyshlennosti)

TITLE: Passivity of titanium in sulfuric acid in deep anodic oxidation

SOURCE: Zashchita metallov, v. 2, no. 3, 1966, 295-299

TOPIC TAGS: titanium, passivity, anodic oxidation, sulfuric acid, corrosion rate

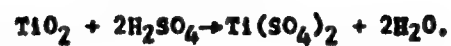
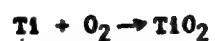
ABSTRACT: The corrosion and electrochemical behavior of titanium under anodic oxidation conditions was studied at high positive values of the potential (up to 7 V) in the presence of molecular oxygen and nitrogen. Electrodes of iodide titanium were investigated in 1 N sulfuric acid at 25 and 65°C. Polarization was achieved with a potentiostat, and the dissolution rate of titanium was determined by colorimetric analysis of the solution. In both oxygen and nitrogen at both temperatures and potential values from 1.4 to 7 V, the dissolution takes place at an approximately constant rate. In the range of minimum anodic current, the dissolution rate is approximately one order of magnitude smaller than the rate calculated from the current; this is attributed to the chemical dissolution of titanium. In the oxygen atmosphere, the dissolution rate of titanium is about three times faster than in nitrogen, apparently

Card 1/2

UDC: 541.138.2

ACC NR: AP6015285

because of the following reactions:



Orig. art. has: 4 figures.

SUB CODE: 07,11/SUM DATE: 09Apr65/ ORIG REF: 011/ OTH REF: 005

Card 2/2 11b

SEVARKOVSKIY, V.B.; GLEBOV, V.A., kand. tekhn. nauk, dotsent; ZHATKIN, G.F.,  
MIKHAYLICHENKO, N.G.; POPOV, A.D.; SIDOROV, Ye.A.; TSVETNOY, S.M.

Stand for testing miniature electrical machines in electric  
instrument systems. Sbor. st. RIIZHT no.45:58-64 '64.  
(MIRA 19:1)

ZORIN, V.F.; TSVETNOY, S.M.

Apparatus for checking the armatures of miniature machines.  
Sborn. st. RIIZHT no.45:70-76 '64. (MIRA 19:1)



PEREL', Yu.G.; POPOV, P.I.; MARTYNOV, D.Ya.; KUNITSKIY, R.V.;  
VORONTSOV-VEL'YAMINOV, B.A.; BAZYKIN, V.V.; KULIKOV, K.A.;  
SHISTOVSKIY, K.N.; TSVETOV, R.I.; BRONSHTEN, V.A.; DAGAYEV, M.M.;  
MOGILKO, A.D.; SEMAKIN, N.K.; DMITRIYEV, L.S.; IZOTOV, A.A.

Mikhail Evgen'evich Nabokov; obituray. Bull.VAGO no.28:60-62  
'60. (MIRA 14:6)

(Nabokov, Mikhail Evgen'evich, 1887-1960

TSVETOV, Ye.P.

Morphological changes in the urinary tract and the healing of the  
vesico-intestinal anastomosis in intestinal plastic surgery of  
the bladder; experimental study. Urologiia 24 no.6:14-20 '59.  
(MIRA 13:12)

(ILEUM—SURGERY)

(BLADDER—SURGERY)

"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001757310001-6

50253-55

11R/C286/65/000/009/0096/0096/

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001757310001-6"

TSVETSINSKIY, S.V.

RDA-57 rotary diffusion apparatus. Sakh.prom. 34  
no.8:22-24 Ag '60. (MIRA 13:8)

1. Sakharnyy zavod imeni Kuybysheva.  
(Diffusers)

MOSKALENKO, S.I.; GABOVICH, M.S.; BACHINSKIY, Yu.V.; TOMILIN, A.V.;  
MEDVEDEV, P.M.; LOMANOVA, M.M.; GOLOVKOV, P.D.; GAYDUKOV, G.I.;  
ALEYNIKOV, V.V.; STENIN, N.D.; MIRONOVA, V.V.; BELAVINTSEVA,  
Ye.S.; TSVETSINSKIY, S.V.; NECHEPURNYY, P.; KOBZAR', N.K.;  
BOZHNOVA, Ye.S.; PRETMINSKIY, V.N.; GORDEYCHUK, V.K.; SHMERIGO,  
V.F.; KISLYUK, N.

Fifty years in the sugar industry. Sakh.prom. 33 no.2:18  
F '59. (MIRA 12:3)

(Shtepan, Georgii Viacheslavovich, 1888- )

TSVETSINSKIY, S.V.

Seven-year plan at the Kuybyshev Factory. Sakh. prom. 33 no.1:13-14  
Ja '59. (MIRA 12:1)

1. Sakharnyy zavod imeni Kuybysheva.  
(Sugar industry)

NAUMOV, Vasily Ivanovich; SIDOROV, Nikolay Grigor'yevich; SAKHAROV, Vladimir Konstantinovich [deceased]; BELETSKIY, G.A., inzh., retsenzent; KARATEYEV, V.N., inzh., retsenzent; NAZAROV, D.M., inzh., retsenzent; KOCHUROV, N.I., dotsent, kand.tekhn.nauk, red.; TSVETNIKOV, V.I., dotsent, kand.tekhn.nauk; GOFMAN, Ye.K., red. izd-va; SOKOLOVA, V.L., tekhn.red.

[Operation, technical maintenance, and repair of automobiles; reference materials] Eksploatatsia, tekhnicheskoe obsluzhivanie i remont avtomobilei; spravochnye materialy. Izd.3, perer. i dop. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 447 p. (Automobiles) (MIRA 12:5)

*TSVETNIKOV, V. I.*

GORBUNOV, M.S.; D'YAKOVA, A.N.; KOZLOV, P.D.; KOCHUROV, N.I.; MYADELETS, O.V.,  
TSVETNIKOV, V.I.; LUR'E, A.B., redaktor; CHAPSKIY, O.U., redaktor;  
VODOLAGINA, S.D., tekhnicheskii redaktor.

[Tractors] Traktory. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1956.307 p.  
(Tractors) (MIRA 9:6)



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D.M., inzhener, retsenzent; TSVETNIKOV, V.I., kandidat tekhnicheskikh  
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